



**Technical Committee 184: Industrial automation systems and integration**  
**Subcommittee 4: Industrial data**

**TC 184/SC4 N1189**  
2001-07-26

**SC4 Spider Team meeting on Website development**

**Participants**

Jerry Smith	SC4 Secretary
Teresa Brittingham	SC4 Deputy Secretary
Allison Barnard-Feeney	NIST
Joe Brazy	ManTech
Ted Kula	ManTech
Greg Paul	WG12 Convenor (Lockheed Martin)
Howard Mason	SC4 Chair (BAE SYSTEMS)

**Objective**

The objectives for the meeting were to define the capabilities required from the new SC4 SOLIS website, and to prioritise and plan their development and deployment.

**Current Status**

The domain name TC184-SC4.org has been transferred to ManTech. Other related names would be transferred from Lothar Klein to preserve their use.

Some prototype development of the SC4 site has been undertaken by ManTech in the DCN/ICN environment. Production use of the facility would depend on upgrades funded as part of the migration of the SC4 Secretariat from NIST. A total of \$31K should be covered by an extension to the existing contract between OSD and ManTech using NIST funding - this had already been agreed between DISA and NIST.

**Action: Howard Mason to contact Steve Ray to seek release of funds.**

The DCN/ICN service was fully funded for the next 12-18 months - beyond that period, the nominal fee would be covered by DISA.

It was agreed that NIST should be requested to maintain the necessary structures to support the hyperlinks already published in SC4 standards. These links could be progressively updated as individual standards came up for their statutory 5 year review by ISO.

The current prototype service is based on a Windows 2000 environment, with access control lists, backed by an Oracle database and other collaboration tools, which were demonstrated:

- The migration of data from SOLIS had started with the transfer of SC4 N-documents into a user-friendly and searchable repository structure. These had been extracted individually from SOLIS, which was time-consuming and inefficient. It was agreed that NIST would extract the material and transfer the available collections of documents progressively.

**Action: Allison to extract and forward SC4 N-document files to ManTech**

Missing information may be recoverable from standards bodies or individual experts. It was noted that some virus-infected files had been found on the NIST SOLIS server.

**Action: Allison to investigate report of infected files on NIST ftp server.**

It was agreed that N-docs should be displayed by default in descending order. Linked modules can be supported, with a link to the balloting application. Consideration should be given to automated generation of PDF files.

- The prototype offers individuals the ability to maintain their own personal information, which can be used to support the access control lists and email exploders. ManTech require a list of attributes and the information views required, which are already defined in the SC4 database, although the list of names is currently out of date. The need to extract information for the SC4 database was noted

**Action: Howard Mason to provide ManTech with the latest version of the SC4 database**

- The service supports the construction and maintenance of email exploders, with no limit on the size of the lists, or the attachments. Address lists can be downloaded by authorised individuals for use in their own systems. ManTech just need the business rules for administration/addition of addresses.
- The weekly Secretariat Newsletters have been used to demonstrate the document management features of the system. These were accepted, subject to conversion of the dates to YYYY-mm-dd format.
- A rudimentary collaboration calendar package is included, but may be upgraded in the future. The current capability could be used to record meeting dates, ballot dates (with hyperlinks) and other events.
- The Webtrends analysis tool is available to record hits on the site.

NIST had expressed concern at the possibility of the existing SOLIS being shut down due to non-compliance with the US Government Section 508 rules on website access for those with impaired sensory perception. It was noted that DCN/ICN compliance to the legislation would be achieved shortly.

A number of other potentially useful DCN/ICN functions were exhibited for consideration:

- Text conferencing
- MS Project Central to provide distributed programme management over the web - possibly for individual project schedules
- Digital dashboard to allow individually configured SC4 access screens

**Other approaches**

Advice was received from Frank Ference on the ISO and JTC1 approaches to the same issue. The ISO ITSIG had developed a series of templates for documents which were not entirely suitable for large and complex standards. JTC1 and the IEEE were looking at alternate solutions using Framemaker. The ISO webserver used Livelink, which led to obscure, complex, unpredictable and dynamic references.

JTC1 is looking at a number of developments to support their process, including:

- User interface - opensource tools for voting
- Technology support for Secretariats
- Automated responses to participants
- Ballot resolution, including web-centric chat features and threaded discussions, using COTS tools combined to provide a service
- Commenting

These developments are open for review and sharing.

**SC4 requirements**

The meeting reviewed and integrated the inputs from the initial meeting between DISA and ManTech in early January, the pre-meeting in San Francisco, and the brainstorming session held by the convenors.

- The requirements were structured into areas targeted at the general user population, the standardisers, and change request processing, with a secured area for restricted documents.

- For each requirement, a priority was assigned based on whether the service would be required at the launch of the new SOLIS (1), or could be added later (2), or was merely desirable (3). Consideration was given to the current availability of the information.
- Business rules were established for each service on the site, identifying those who had permission to update information, and the authors of the information. The Secretariat and Chair would have share permissions to amend the site in order to provide some redundancy. WG Convenors will have management of their areas of the site.
- The effort required to establish the initial site structure (priority 1 items) and populate it with accurate information was estimated, and actions placed to address significant items.

The resulting proposed structure is documented as SC4 N1187, and will be circulated to the Convenors and PPC for their assessment and comment on the structure and priorities.

**Action Howard Mason to circulate proposed structure with meeting notes for comment**

A number of other requirements were also agreed:

- Documents should be held once, usually in the WG N-documents directory, and linked from other locations, such as the Part directories
- The directory structure for parts would be established using templates to provide predictable hyperlinks to documents- named documents throughout - A private area would be maintained for restricted documents
- There would be an option for teams to set up their own pages under the WG structure and to use the document repository for their work
- The use of SourceForge for the EXPRESS definitions would be set up by NIST, but would be maintained by those with an interest in keeping it up to date. Allison is setting up this capability, which may be migrated to the new SC4 Website (or other website) in the future.
- The new SHTOLO would need to be driven from the latest versions of the EXPRESS schemas, unless otherwise specified. The new version of SHTOLO is under development by STEP Tools, Inc, under contract to NIST. SHTOLO may be migrated to the new SC4 Website or hosted by another site.
- A number of the email exploders with defined membership should be established as a priority. To ensure accurate information, the subscription exploders would be started from empty, and existing participants invited to resubscribe
- An updated SEDS process should be defined to allow automated allocation of reports to the correct convenor, although reallocation after assessment would be feasible. The convenors would also upload the agreed resolution and disposition, eliminating the need for manual transcription.

**Action: Howard Mason to propose updated SEDS process information requirements and business rules**

The secretariat had developed an initial list of meta tags for the site (see SC4 N1188).

**Action: Spider team and Convenors to review list and suggest additional meta tags**

It was recognised that there was a major problem with cleaning data on the NIST site. It was proposed that selections of information should be extracted and progressively transferred to ManTech, with appeals to the SC4 community for missing information. The initial requirement would be to transfer the information related to the latest stage of development of each project. A mass dump of data could be undertaken if the NIST site became unavailable, but a managed transfer would be desirable.

The WG12 Convener has been maintaining a list of modules that are under development and those registered as NWIs within SC4. This list needs to be made more widely available to SC4 personnel.

**Action: WG12 Convener to provide the list of module names, WG12 N-numbers, current developers, etc. for the new SC4 web site.**

Once the new site was ready for use to the satisfaction of the Secretariat and Convenors, it was agreed that no further information would be loaded on the old SOLIS, although it would be retained as an archive while the remaining legacy information was transferred.

Apart from the development of the overall site structure, the following key actions were identified to achieve an initial operational capability to satisfy the needs of the SC4 organisation:

**Action: NIST (Allison) to initiate transfer of SC4 and WG Ndocs**

**Action: ManTech to set up FTP sites for uploading of SC4 and WG documents**

**Action: Allison/Greg to define initial set of Express schemas to be included in the repository**

**Action: Teresa and ManTech to define structure of Part directories**

**Action: Howard/Greg/Allison to define content template for Part directories**

**Action: Gerry Radack and Lothar Klein to identify Express schemas for APs**

**Action: Allison, Teresa and ManTech to identify and transfer necessary files**

**Action: Teresa and ManTech to extract and structure the meeting records for the last three meetings**

**Action: Teresa and ManTech to establish voting records**

**Action: Allison and ManTech to arrange transfer of meeting request forms**

The design of a new balloting tool and the implementation of the revised SEDS procedures were recognised as second priorities.

## **Conclusions**

The meeting concluded that:

- The basic approach demonstrated by the prototype was sound, and that the results of the meeting provided a structure for developing the new operational SOLIS site, subject to the release of the NIST funding.
- It was recognised that a significant effort would be required to populate the new structure with accurate information.
- When the production site was available and populated with the initial information, it should be viable to cutover from the old SOLIS.
- The necessary actions had been placed to address the initial capability
- The proposed structure should now be circulated to the Convenors and PPC for their review and comment

Thanks to ManTech for hosting the meeting.